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DETROIT PUBLIC SCHOOLS

5057 WOODWARD AVENUE

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General Superintendent

DETROIT, MICHIGAN 48202
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January 6, 1997

The Honorable Reed Hundt
Chairman
Federal Communications Commission
1919 M Street, N.W., Room 814
Washington, D.C. 20554

RE: CC Docket No. 96-45

Dear Chairman Hundt:

I am the General Superintendent for the Detroit Public Schools, and I would like to thank you for your leadership and the leadership of the Joint Board for their strong decision to ensure that all schools will have affordable access to the Information Superhighway. I urge the FCC to fully adopt the recommendations of the Joint Board.

The discount range of 20 to 90 percent will ensure that all schools - even the poorest - have truly affordable access. The plan is also very flexible and will empower schools to select the services that work best for their educational mission. The inclusion of discounts on internal connections and Internet access is equally vital and stands to bring services directly to the classroom where students learn.

We have developed a technology plan (copy attached) which provides for access to the Internet from every classroom. To-date, we have connected forty of our 263 schools to the Internet via high speed telephone lines. By the end of this school year, over 100 schools will be connected. However, the result without your efforts, would be a major increase in our telephone usage charges. This discount will allow us to provide Internet access without negatively impacting our budget.

As you move ahead in your deliberation on this important issue, I urge you to seize this opportunity to bring 21st century learning to our school children.

Sincerely,

David L. Snead

ACHIEVING EXCELLENCE THROUGH TECHNOLOGY

Detroit Public Schools
Educational Technology Plan
1995-2000

Approved by the Board of Education
September 26, 1995

David L. Snead, Ph.D., General Superintendent
Detroit Public Schools

ACKNOWLEDGMENTS

The Educational Technology Plan is the result of efforts during the 1994-1995 school year of the Educational Technology Plan Action Team whose dedication is much appreciated. The Action Team recognizes the following individuals and groups for their information and expertise that has been incorporated into this plan:

- Detroit Public Schools' Board of Education members for their vision and support;
- General Superintendent, Dr. David L. Snead, for his direction and leadership;
- Deputy Superintendent, Mr. Clifford E. Cox for his direction and technology vision;
- Students, staff, Board members, parents and community members who took the time to be interviewed or to respond to our survey.

It is impossible to acknowledge or measure the value of each contribution. However, without the vision and expertise of so many, the preparation of this plan would not have been possible.

With sincere thanks,

The Educational Technology Plan Action Team:

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I. EXECUTIVE SUMMARY

Detroit Public Schools' Educational Technology Plan, developed in support of the District's Strategic Plan, provides a blueprint for the:

- selection;
- acquisition;
- implementation; and,
- integration of:

instructional and administrative technology for the school district. This is not a plan for district funding but a plan for equitable system-wide technology implementation which will require a variety of funding sources including bonds, Title 1, technology grants and business partnerships. Educational technology is viewed as an important tool for students, teachers and the rest of the "village" in preparing students for the 21st Century.

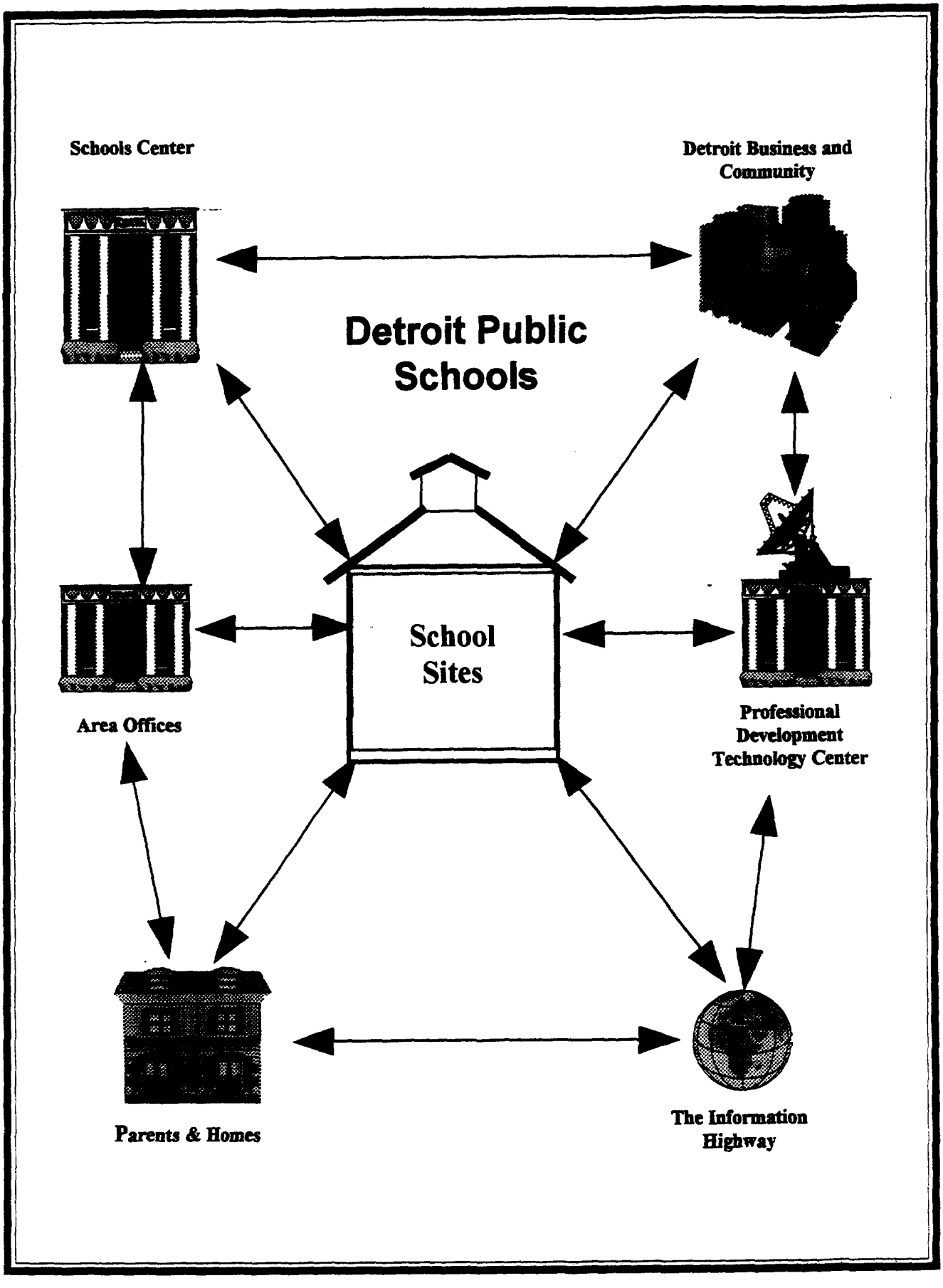
Development of the Plan

In preparation of the report, a stratified random sample of district staff, students, parents, community and members of the Board of Education were surveyed for their concerns and recommendations for educational technology. Their responses form the basis for the Technology Plan. Concerns, objectives, recommendations, and strategies are organized into **nine major areas**:

- **Professional Development** for staff and community;
- **Support** for equipment repair and replacement and facility upgrading;
- **Equity** issues including equal access to technology for students and the equitable distribution of human and financial resources;
- **Organizational Structure** and the creation of an environment which supports users' decision making;
- **Instruction, Student Outcomes and Curriculum** recommendations for classroom uses of technology;
- **Information Management** and the use of business applications of technology;
- **Measurement and Assessment** of effective technology use;
- **Standards, Guidelines and Models** for selecting and installing technology; and
- **Marketing the Plan** for successful use of instructional and administrative technology.

Infrastructure Overview, Instructional and Administrative Models

The plan uses models to describe the basic level of technology at various sites. Classrooms, schools, the district and community will be linked with communication lines tying together voice, data and video systems. Sub-networks will enable users to access district instructional and administrative applications and to communicate with the global community. Community members will be able to borrow technology from school sites to enhance their skills and those of students. The day-to-day operation of the school district will be enhanced through student, financial, procurement and human resource Administrative Systems.


Schools Center
Detroit Business and Community
Detroit Public Schools
School Sites
Area Offices
Professional Development Technology Center
Parents & Homes
The Information Highway

School Model Specifics

Other School Districts

Detroit Businesses and Community

Classroom

5 Networked Stations
1 Networked Teaching and Administrative station
- multimedia control station
- projection device for VCR, TV, video and data, screen capability of CD-ROM, satellite, cable connections

High Quality printer
Video Distribution System
Access to internet, admin. network, software, subject specific technologies, dial-tone, Security, furniture
1:1 student:port ratio

Library Media Center

5 network ports
3-6 Circulation stations
10-20 Networked stations
- online catalog
- online research
- cd-rom

2-3 Printers, fax, copier
VCR, Laserdisk, CD-ROM
2-3 Barcode readers
Color scanner

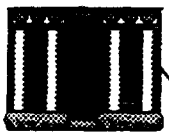
Departmental Office

3 Networked Stations
1 Networked Station per administrative office site
High Quality printer
integrated fax
phone and phone lines

Computer Classrooms

35 Networked Stations
1 Networked Teaching / Administrative
- multimedia control station
- projection device for VCR, TV, video and data, screen capability of CD-ROM, satellite, cable connections

High Quality b/w printer
Television and VCR
multi-disciplinary cross-curriculum software
furniture, appropriate security



Area Offices

Main Office

1 Networked station per desk
Fax
Phone lines
High quality printer

Community Technology Lending Center (Areas & Schools)

Laptop Computers
Software: Courseware & CD-ROMs
Camcorders

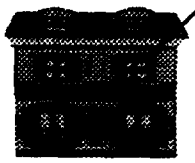
School Wide Technology

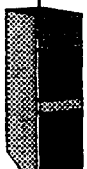
Specialized technologies	CATV connection	Color scanner
Adaptive devices	Laptop lending pool	Label makers
Digital video camera	Laminator machines	File servers
Large volume, collating copier	Binding machines	

Access to district approved curriculum subject specific, publishing, teacher productivity, instructional and student management software.

Two-way video interactive communication between schools and within schools

Home





Schools Center

Benefits

Students believe increased use of technology will help them learn better and faster. The school community believes students will benefit through higher achievement, enhanced learning and motivation and better preparation for the future.

High school students will benefit by participating in a **Technicians Training Program** to learn how to maintain and repair computers and other equipment at school sites.

Staff will benefit through improved communications, efficiency and productivity and in the ability to manage information and to provide enhanced instruction.

The District will benefit from improved student learning, increased cost effectiveness and efficiency, improved communication and improved public image.

The community will benefit from better communication, a better prepared work force, increased parental involvement and life long learning opportunities. A Community Technology Lending Center in each school will help each school community become an electronic village.

Professional Development

Integral to the Educational Technology Plan is a systematic plan for professional development that provides staff and community:

- A variety of technological activities and learning opportunities; and,
- The knowledge and skills to prepare technologically capable students.

The professional development plan will be implemented in phases to provide sustained and coached experiences over a period of time.

Implementation and Costs

The Educational Technology Plan uses the concept of phased implementation. Phased implementation recognizes the constraints that time, budgets and human resources have on the implementation process. Each phase is associated with a definitive timeline. The timelines are flexible considering that variables such as costs, availability of human resources, the political climate, new technologies, and community support may cause a phase to take more or less time than is anticipated.

It is estimated that **Phase 1 (1995 -1998)** would take approximately three (3) years to complete, **Phase 2 (1998 - 1999)**, one (1) year and **Phase 3 (1999 - 2000)**, one (1) year for a total implementation of five years. However, in some instances, phases may overlap. Schools may have already installed some components of the school models. Should additional funding become available to these schools, they may elect to implement school model components from each phase concurrently.

Phase 1 of the technology plan primarily includes the installation of the wiring infrastructure and one multimedia teaching and administrative station for each classroom in the school district. During Phase 2, the installation of school and administrative models will begin. The school models are scheduled for completion in Phase 3. Using a variety of funding sources, it is estimated that Phase 1 implementation will cost $113,409,338.00; Phase 2 $173,156,534.00; and, Phase 3 $108,500,099.00 for a total implementation cost of $395,065,971.00.

Appendices

The plan concludes with a set of nine independent and related documents. These documents are all integral to the successful implementation of the Educational Technology Plan. Included in the appendices are:

- Study Methodology
- Participant List
- Survey Results
- Technology Planning Guide
- Glossary

II. INTRODUCTION

The Detroit Public Schools' Educational Technology Plan was developed in support of the Strategic Plan of the Detroit Public Schools. It provides the basic direction for the selection, acquisition, implementation and integration of instructional and administrative technology for the school district. The plan will be updated as the phased technology implementation cycles move forward.

This plan is divided into eight sections and contains appendices that support the plan. The first two sections present a vision for the use of technology in an educational setting and show the relationship of the Educational Technology Plan and the School Improvement Plan to the Strategic Plan. Also presented are the specific goals, objectives and strategies of the Strategic Plan that are supported by the Educational Technology Plan.

The feelings, attitudes, beliefs and recommendations of the students, staff and community about the current status and necessary future directions of technology in the District were elicited through interviews and survey questionnaires. The areas of concern, objectives, recommendations and strategies are directly related to the results of the interviews and surveys.

From the areas of concern, the Educational Technology Plan Action Team developed specific recommendations and strategies for implementation. The specifics of the infrastructure design; and; instructional and administrative models are presented in detail. These models represent the schools and offices of the future. They reflect the results of the interviews and surveys as do the rest of the plan that includes benefits, professional development, and the implementation phases. The implementation process includes costs associated with each phase and recommended funding sources.

The Appendices contain the study methodology, a participant list, survey results, the questionnaire, interview questions, a technology planning guide, technology procurement guidelines, and a glossary.

III. VISION

Our vision for information technology begins not with computers or video information systems, but with Detroit children becoming world class citizens of the twenty-first century. That vision sees teachers, administrators, parents and the community working together to provide world class opportunities through world class education in the Detroit Public Schools.

Information technology plays an important part in that transition from childhood to world class citizenship. This technology plan is, "A plan for the future of our children which relies on the power of information technology."

Students and staff will:

- skillfully use modern technologies which facilitate and enhance student learning;
- confidently and competently use a variety of technologies to create, access, store, retrieve and manipulate information; and,
- use educational technologies to expedite instructional/managerial and administrative tasks.

The children will use a variety of modern technologies to create, access, store or retrieve and manipulate information.

The teacher will use modern technologies to simplify administrative tasks such as attendance, grade reporting and lesson plan preparation and to nurture and monitor the achievement of students.

The administrator will have better and more timely information with which to make academic, financial and operational decisions.

The parent will be able to access information to help with homework assignments, monitor academic progress and attendance; and access information about behavioral problems. Parents will be able to participate in school-based training in the use of technology and access programs for their personal development.

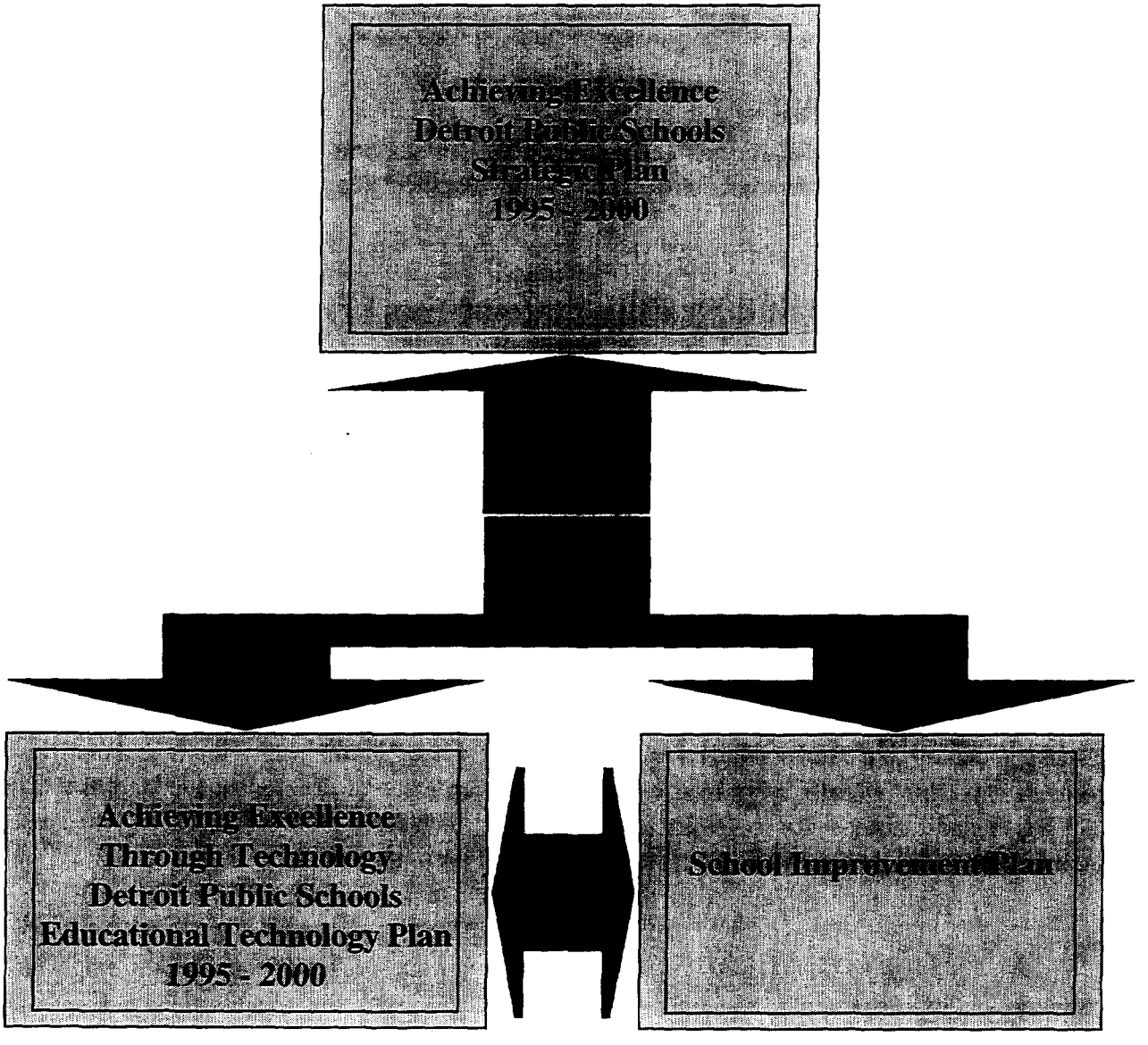
The community will be able to use technology to access school information and participate in the expanded education of students through partnerships, mentorships and collaboration activities. Access to the information highway will increase the connection of the community to the school.

Our students must be prepared for a world with job opportunities that do not exist today, with job skills that are not known today, with technologies that are not common today. The Detroit Public Schools Educational Technology Plan addresses this need.

RELATIONSHIP TO STRATEGIC PLAN

The Detroit Public Schools Strategic Plan sets forth the mission, goals, objectives, and strategies for the district. The Detroit Public Schools Educational Technology Plan sets direction, and identifies the technologies needed to meet the districts' goals; and, serves as the basis for the school level technology plan done as a part of the overall school improvement plan.

The diagram below depicts the flow of this relationship.



Each goal, objective and strategy of the Strategic Plan can be more effectively implemented, enhanced or managed with the use of modern technology. The following Goals, Objectives and Strategies are specifically related to the use of technology:

Goal 1
Successfully Educate All Students

Objective 1.9 -- Technology
By 1995-2000, increase from 60 to 90 the percent of students **competent in the use of computers for learning.**

By 1995-96, increase from 34 to 50 the percent of students who use **computers for learning.**

Strategy 1E -- Technology
Implement a district-wide **Educational Technology Plan** for students and staff that provides all schools and offices with appropriate new technology and staff development support for utilizing the technology.

Goal 2
Create a Clean, Safe and Healthy State-of-the-Art Learning Environment

Objective 2.1 -- School Facilities
By 1999-2000, complete the School Facilities Bond Authorization Program as scheduled.

Strategy 2B -- Facilities Funding
Pursue additional funding to improve school facilities, including those related to **technology.**

Goal 3
Maximize Human Resource Development

Strategy 3B -- Professional Development Program
Implement a **technologically advanced** comprehensive professional development program that provides school-based and district-wide professional development; includes mentoring and ability to meet student and community needs and provides adequate time for staff participation.

Goal 4
Enhance School, Parent and Community Collaboration

Strategy 4B -- Parent Involvement
Implement programs, including parenting education, that increase parent involvement in support of student learning.

Strategy 4E -- Communications
Implement an effective internal and external communications program that employs the use of **technology.**

Goal 5
Enhance Managerial and Fiscal Accountability

Objective 5.3 -- Textbooks, Supplies and Materials
Increase percent of schools whose principals and teachers rate as satisfactory the service they receive related to accessibility of textbooks, supplies and materials.

Objective 5.4 -- Balanced Budget
Balance the budget annually

Strategy 5E -- Equitable Resource Allocation
Establish and maintain an equitable allocation of financial resources to schools.

Strategy 5F -- Student Transportation
Employ student transportation cost containment measures.

Strategy 5I -- Instructional Materials
Implement an efficient instructional materials procurement and distribution process.

V. FINDINGS

A. Areas Of Concern

B. Objectives, Recommendations and Strategies

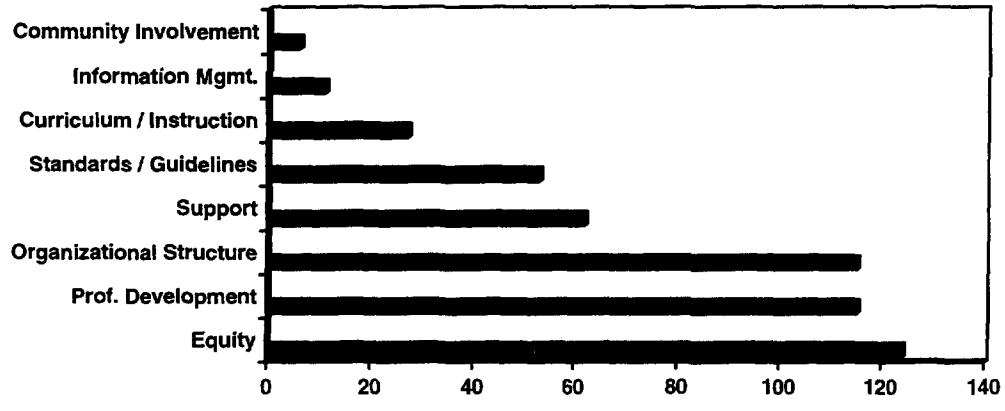
A stratified random sample of District staff representing all job classifications, students, community members and Board of Education Officials were invited to attend half-day sessions during which their concerns and recommendations for educational technology were addressed. Both structured oral interviews and written surveys were used for data collection. The findings follow. Additional detail related to this research appears in the appendices. These concerns, recommendations and strategies form the basis for the remainder of the plan.

A. AREAS OF CONCERN

Concerns were addressed by interviewees, survey respondents and technology planning team members. Below is a graphic representation of the responses of interviewees. This is followed by a compilation of interview responses combined with those of survey respondents and technology team members.

The following question was asked of the interviewees: ***"What obstacles prevent widespread use of technology at your work site?"***

The graph below represents the number of times each of the categories was mentioned as an obstacle.



Marketing The Plan

Parents, community and staff are not always aware of the successful use of instructional and administrative technology in the district.

Information Management

Current Administrative Systems are not considered user friendly. There is an absence of comprehensive and integrated business applications. Excessively optimistic expectations of staff have led to unrealistic lead-time for the implementation of new applications.

Instruction, Student Outcomes & Curriculum

Teachers and students have limited access to technology and software for classroom use. Inadequate support of the use of technology exists at the classroom, school, area and district-wide levels. Additionally, individual classroom and school curricula may not be aligned with the Strategic Plan, district curriculum outcomes, and recommendations for use of technology.

Standards, Guidelines & Models

There is not a single, all encompassing network in place, to handle the voice, data and video needs of the district. Technology models for various kinds of technology, e.g., classrooms, labs, libraries, administrative sites, etc. are needed. Many facilities need infrastructure improvements to allow for the installation of new and future technologies. Additionally, due to the widespread use of computers and the multiple ways that systems can be accessed, the district is exposed to network hackers, a lack of data integrity and computer viruses.

Support

Staff who were interviewed stated that it is often difficult to have equipment repaired in a timely manner and that funds are not allocated to schools and offices for technology replacement, repair and upgrades. Furthermore, in many DPS sites, security and facilities are inadequate to accommodate technology. Finally, there is a lack of staff to support teachers and professionals for the guidance and application of technology.

Organizational Structure

The organizational structure of the district does not readily allow for or support change. This adds to the difficulty of implementing new systems and applications. The organizational environment does not always support users' decisions about acquisition and implementation of technology.

Professional Development

Inadequate time is scheduled for professional development related to technology and a lack of awareness with respect to the use, availability and value of technology. Furthermore, staff indicated that there are limited opportunities to obtain training in various software applications and curriculum infusion. Finally, staff stated that there was inadequate access, incentives and resources available for successful professional development.

Equity

Inadequate adherence to Board equity policies regarding equal access to technology is a significant issue. Respondents indicated that there is inequitable distribution of funds, technology, technical support staff, and expert trainers to provide sufficient professional development, curriculum infusion and access to technology. A lack of coordination between the Division of Information Services and other DPS offices was noted.

Along with the above categories, respondents often added their concerns over how success would be determined. These concerns were gathered into an additional category: **Measurement and Assessment.**

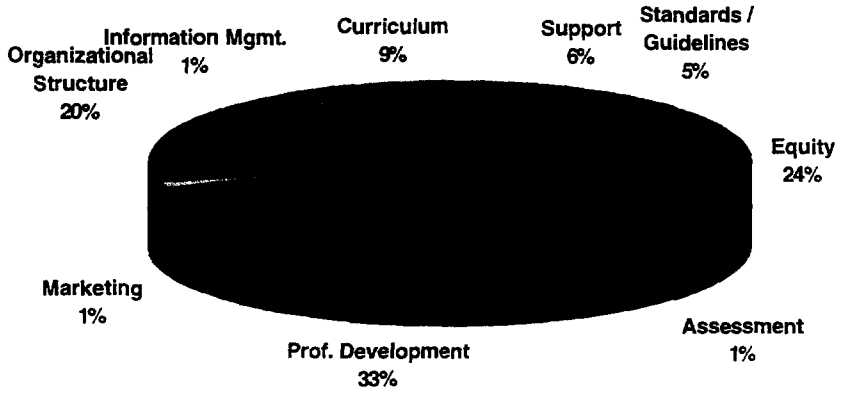
Measurement And Assessment

A variety of methods are needed to measure and assess the effectiveness of technology use for instructional and administrative purposes.

B. OBJECTIVES, RECOMMENDATIONS AND STRATEGIES

The following question was asked of the interviewees: *"Considering all the information shared today, identify YOUR priority in implementing an Educational Technology Plan."*

The graph below represents the percentage of total responses that each of the categories received.



Professional Development

Objectives:

To provide a variety of technological activities and learning opportunities for staff and community.

To provide staff and community with the knowledge and skills required to prepare technologically capable students.

Recommendations:

Time

Provide time-effective professional development opportunities for technology at all levels of the organization.

Strategies:

- Negotiate professional development training days with bargaining units.
- Provide time-effective professional development opportunities in the use of technology at all levels of the organization.

Awareness

Provide professional development awareness opportunities for technology at all levels of the organization.

Strategies

- Publish professional development opportunities through a variety of media.
- Provide training in the use of a variety of technologies.

Software Applications
Provide opportunities for staff to obtain professional development in the use of various software applications; e.g., word processing, Windows, spreadsheets, database systems, AMS, CIMS, etc.

Strategies:
- Conduct needs analysis to determine software application requests.
- Conduct necessary application software and application training.

Curriculum Infusion
Improve the level of cooperation and coordination between the Divisions of Educational and Information Services to support technology infusion.

Strategies:
- Establish monthly articulation meetings between the Divisions of Educational and Information Services to address curricular issues and current research in the effective use of technology.
- Develop and implement professional development activities to support curricula changes.

Access and Equity
Provide equal access to professional development for technology use.

Strategies:
- Provide adequate technology resources on site.
- Provide technology models for administrative and instructional use for all sites.

Resources
Provide adequate resources to deliver effective training in the use of new technologies.

Strategies:
- Identify and provide adequate staff to support effective training in the use of technology.
- Establish, develop, and implement professional development activities for professional development trainers in technological applications.

Credits, Compensation and Incentives
Provide incentives to encourage staff to engage in professional development for technology.

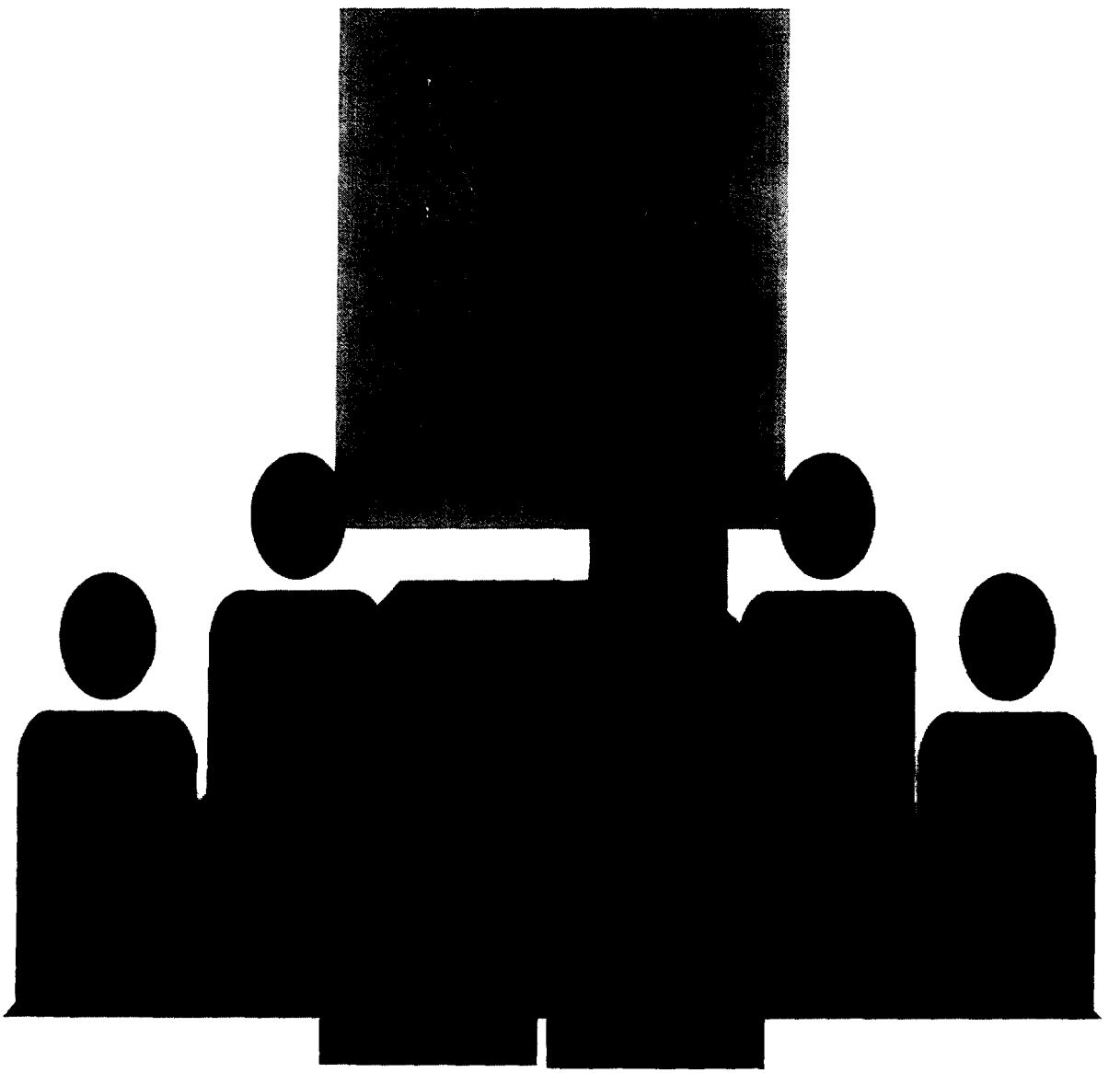
Strategies:
- Schedule CEU sessions on a regular basis.
- Provide schools and departments a budget for stipends to encourage participation in technology training.
- Develop a relationship between DPS and universities to provide technology-based training for academic credit.

General Training
Provide basic training in the use of various technologies for DPS staff.

Strategy:
- Develop and implement application specific training for staff based on user skill level.

Community and Parent Training
Provide technology-based professional development opportunities for parents and community.

Strategy:
- Develop technology-based professional development opportunities for parents and community.



Support

Objective:

To develop strategies that will assure quality support for all aspects of the Educational Technology Plan. This includes but is not limited to: technical support for all staff, advance training, maintenance of new technology and maximum up time for hardware and software that will provide for the proper transfer of information to students and staff in a State-of-the-Art learning environment.

Recommendations:

Equipment Repair

Institute procedures for the timely repair and replacement of equipment at all levels.

Strategies:

- Publish district guidelines for the repair of technological equipment.
- Develop & publish a recommendation cycle for the replacement of equipment.
- Revise and publish official procedures to facilitate the acquisition of replacement parts to expedite repairs.
- Evaluate the benefits of acquiring theft & damage insurance versus the actual cost of replacing damaged and stolen equipment directly.
- Train student computer repair technicians through structured programs available in selected secondary school sites.

Money

Allocate adequate funds for purchase, repair, upgrade, and replacement of all equipment.

Strategies:

- Ensure all computer equipment and printers are purchased with a cost effective manufacturers' warranty to reduce annual hardware maintenance costs.
- Utilize all sources of funding to enhance the school models to maximize proliferation of technology.
- Establish a percentage of school and office budgets to be allocated for repair, replacement and upgrades.
- Establish a percentage of school and office budgets to be allocated for the acquisition of technology.
- Budget additional funds to augment the audiovisual and microcomputer repair staff to ensure a minimal turnaround time for simplistic repairs.

Security Considerations

Insure sufficient security at all sites.

Strategies:

- Design the network infrastructure with both physical and logical security features.
- Pursue the prosecution of persons responsible for theft of assets.
- Brand and Inventory all hardware for easy identification.
- Determine security requirements for portable equipment such as laptops.

Supported Equipment and Software
Establish procedures to ensure that all schools and offices use only district supported hardware and software.

Strategies:
- Publish a list of district supported hardware and administrative software.
- Establish procedures for negotiation and purchase of district licensed software for instructional purposes.
- Establish on-going procedure to update supported hardware and software procurement list.

Facilities
Retrofit all district facilities to accommodate new and anticipated technologies.

Strategies:
- Utilize bond moneys to support district strategic plan for facility retrofitting.
- Develop air-conditioning requirements.
- Define electrical requirements.
- Purchase and install ergonomic furniture for school models at all sites.

Support Staff
Provide adequate staff to guarantee timely assistance for all staff who use technology.

Strategies:
- Utilize volunteers to provide on-site and one-on-one assistance to all staff.
- Provide dial-in diagnostic tests for all sites.
- Improve the help desk system where real-time solutions are provided.
- Hire a skilled technical staff member for each building location.
- Use District curriculum staff to model the use of technology in content areas.

Equity

Objective:

To develop strategies that will assure equitable distribution of money, resources, technical training of all staff and facility improvements which will provide each student and staff the opportunity to receive, understand and use technology.

Recommendations:

Standards and Support

Provide continuous financing for future trends in technology.

Strategies:

- Provide an annual percentage of the District budget for technology.
- Collaboratively work with Grant Procurement to actively seek and apply for technology grants.
- Manage effectively the funds allocated for technology.
- Provide money on a per pupil basis for non-Title I schools.

Fiscal Management Effectiveness

Provide funds for technology and effectively manage them.

Strategies:

- Make equitable allocations based upon number of students and or staff in each location.
- Maintain accurate records and reports of all moneys spent.
- Audit technology moneys spent at sites on a regular basis.
- Assign a task force to monitor the implementation of the Educational Technology Plan.

Staffing

Provide adequate support and expert trainers to service staff needs.

Strategies:

- Offer an "Earn a Computer Course".
- Develop and offer a "degree" course for teachers.
- Create staff positions for teachers who are technologically competent.

Coordination

Work collaboratively with all offices and schools to establish technology as an integral part to the success of the school district.

Strategies:

- Integrate the use of technology in job descriptions.
- Encourage the Divisions of Curriculum and Information Services to work together.
- Encourage the use of E-Mail, fax and other electronic communication systems through-out the district.

Curriculum and Instruction

Provide opportunities for staff to learn to use technology for the delivery of instruction.

Strategies:

- Demonstrate teaching skills in an instructional technology model.
- Acquire software, videos, etc. which demonstrate technology integration.

Organizational Structure

Objective:

To update the organizational structure to facilitate and communicate change and support the mission of the district. Specifically, the organizational structure must assist students, staff, and community in using technology to become self directed learners.

Recommendations:

Change Acceptance

Establish a more collaborative organizational structure where managers from all areas are consulted and allowed to take a leadership role in installing technology.

Strategies:

- Establish a plan for all administrative and instructional systems that provides for formal overviews by managers prior to installation.
- Create groups or selection committees for the adoption of major software packages. Make the groups wide-ranging using technology such as Team Focus that allows electronic input from a large group of users.
- Provide motivational speakers related to technology at school, area, and district meetings that encourage the knowledgeable acceptance of technology.

Shift in Ownership

Foster a working relationship where experimentation and innovation are encouraged and rewarded.

Strategies:

- Encourage the development of more efficient systems and strategies using technology.
- Develop an employee incentive program to encourage creative use of technology.

Responsiveness to User Needs

Advertise, market, and hire key technology staff with a view toward long term development.

Strategies:

- Negotiate the hiring of competent technology professionals.
- Establish contracts that have closed end specifications. Send consulting contracts out to bid and enforce the outcomes specified in the contract.
- Develop a list of qualified repair technicians for technological equipment.
- Improve service to the user community through simplified processes and increased staffing of support service positions.

Technical Strategy

Develop a more universal computing and telecommunications platform that will allow continuous development of integrated systems.

Strategy:

- Have all systems, application programming, infrastructure installations that are not to be completed by district staff, go out for bids.

Instruction, Student Outcomes & Curriculum

Objective:

To prepare technologically capable students who apply diverse technologies across curricular areas and use these technologies throughout the learning process.

Recommendations:

Curriculum Design

Align individual classroom and school curricula with the Strategic Plan, District Curricula Outcomes and recommendations for use of technology.

Strategies:

- Educate staff about State of Michigan mandates and requirements.
- Educate staff about the Strategic Plan and District Curricula Outcomes.
- Provide for effective publication and distribution of curriculum documents to all staff.
- Require curriculum training to ensure intended audiences are reached.
- Evaluate effectiveness of implementation of technology-use strategies of the Strategic Plan and District Curricula Outcomes.

Applied Knowledge

Provide teachers with appropriate access to technology for classroom use.

Strategies:

- Refer to Standards, Guidelines and Models.
- Refer to Professional Development.

Student Instruction

Provide students appropriate opportunities to learn and use technology effectively.

Strategies:

- Redefine use of classroom time, including lesson design and scheduling.
- Provide training and models for school-to-work applications of technology.
- Provide training and models for integration of technology as part of curriculum and instruction.
- Redefine classroom space for technology use.

Policy and Standards

Establish district-wide policies and standards for the selection and use of technology.

Strategies:

- Study impact of technology on student achievement.
- Assure adherence to policies and standards.
- Review policies as new technologies evolve.
- Establish standards for purchase of technologies and content specific software.
- Monitor adherence to Board equity policies.
- Establish policies and guidelines for involving teachers in technology, hardware and software selection and technology infusion decisions.
- Assure adherence to Board of Education equity policies regarding equal access to technology.